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Response to Comments

November 18, 2002

Draft Final Remedial Investigation (RI) Report for Operable Unit 6, Site 12, Marine Corps Air Station Cherry Point, NC (Dated June 2002)

Comments received from Michelle Thornton, U.S. EPA Region IV, via letter correspondence to Rodger Jackson/LANTDIV, dated September 10, 2002.

Comment: I have reviewed the above subject document and find it acceptable for its intended use. However, before I am able to agree with your recommendation that a Feasibility Study (FS) is not warranted for this site, further discussions regarding the frequency and magnitude of the constituents detected in surficial groundwater and surface soil need to take place amongst the MCAS Partnering Team. The EPA agrees and acknowledges that a number of data gaps were addressed in this final document which characterized the nature and extent of contamination in the various media. While the contamination appears to be fairly localized and of limited extent, contamination in soil and groundwater exceeds regulatory standards or screening criteria at multiple locations.

Response: Comment noted. This Response to Comments document is intended to facilitate discussions within the MCAS Cherry Point Partnering Team to resolve these issues.

Comments received from Dave Lilley, North Carolina Department of Environment and Natural Resources (NCDENR), via email from George Lane/NCDENR, dated September 16, 2002.

Comments on the Human Health Risk Assessment Contained Within the Draft Final Remediation Investigation Report for OU 6, Site 12, MCAS Cherry Point, NC June, 2002

1. Table 5.1: It is unclear to the reader where the oral RfD for iron came from. Both the current Region IX PRG table and Region III RBC table list the RfD for iron as 3.0E-01 mg/kg-day. Both sources cite this as an NCEA value. Please correct or cite the source of your value.

Response: At the time the final HHRA was prepared, the RfD value in the Region III RBC table (9/25/01) was 0.6 mg/kg/day. This was the value used in the risk assessment. The value was changed to 0.3 mg/kg/day in the 4/2/02 RBC table, which occurred well after the HHRA for OU6 was originally prepared. The effect of using the more recent RfD of 0.3 mg/kg/day would be a doubling of the hazard calculated for iron in the RI Report, as the intake is divided by the RfD to calculate the hazard.

The reference citation of NCEA as listed in Table 5.1 of Appendix is correct. The Region IX PRG and Region III RBC tables are not original sources for RfD values. Since the oral RfD

for iron used in the HHRA was current at the time it was prepared, no revisions are proposed.

Comments on the Screening Level Ecological Risk Assessment Contained Within the Draft Final Remediation Investigation Report for OU 6, Site 12, MCAS Cherry Point, NC June, 2002

1. No Comments

General Comments:

The NCDENR cannot at this time agree with the Conclusions and Recommendations that a FS is not required.

1. Apparently most of the RI concentrated around the current burn pit. Is there any reason why the other historic burn pits were ignored? Why were there no samples taken directly beneath the these other burn pit locations?

Response: The historic burn pit locations were not ignored. Soil samples were collected from below the asphalt runway surface at the approximate center of 2 of the 5 former burn pit locations (at the direction of EPA and State regulators on the Cherry Point Partnering Team during the Sample Strategy Plan presentation in 1998). The 2 sampled former burn pit locations were selected based on the likelihood that they were in use the longest based on the examination of historic aerial photographs. The Work Plan was later approved as final by both the State of North Carolina and EPA. In addition, a groundwater sample was collected from monitoring well 12GW04, located beneath another of the historic burn pits and downgradient of the current burn pit.

The results of the soil samples collected beneath the 2 former burn pit locations indicated that these samples were arguably the least contaminated of any of the soil samples collected at Site 12. The groundwater sample collected from 12GW04, located beneath a third former burn pit location, contained no petroleum-related contamination. Overall, the results of the samples collected beneath the former burn pits support the conceptual model of the site developed during the RI. The conceptual site model for Site 12, developed during the RI Work Plan stage based on historic data, and supported by the results of the RI, is that the primary mechanism for contaminant transport was surface runoff from the asphalt and concrete runway surface to the grassy area south of the runway, where limited amounts of petroleum-related contamination has been found.

2. It is not apparent to me that the lower surficial aquifer was sampled during this investigation. Since we cannot be absolutely certain of what was burned in these pits, were DNAPLs considered?

Response: While the theoretical possibility that DNAPLs may have been mixed with jet fuel in the historic burn pits was considered[1], no groundwater samples were collected from the lower surficial aquifer during the RI. The rationale for the RI groundwater sampling with respect to delineating the nature and extent of contamination was to first determine if contamination was present in the upper surficial aquifer. If so, the delineation of contamination would be continued to determine the full vertical extent of groundwater contamination. At Site 12, no chlorinated VOCs were detected in any of the groundwater samples (upper surficial aquifer). In soils, no chlorinated VOCs were detected in any samples, other than low concentrations of methylene chloride in a handful of samples. Based on the lack of evidence supporting the potential existence of DNAPL from the soil and groundwater results, and because DNAPLs leave residual contamination in soil and aquifer pore spaces during downward migration, we consider it unlikely that DNAPL could have caused lower surficial aquifer contamination without producing at least some minor manifestation in the upper surficial aquifer or soils.

[1] Based on knowledge of practices at these types of units at other facilities. We are not aware of any evidence that this occurred at MCAS Cherry Point.